THE FINANCIAL SYSTEM WE NEED

ALIGNING THE FINANCIAL SYSTEM WITH SUSTAINABLE DEVELOPMENT

JUNE 2018
Global Challenge: Sustainable Finance

- **US$ 75 trillion** – size of the global economy in 2016
- **US$12 trillion** in market opportunities in investing in the SDGs
- Only 5-10% of bank loans are ‘green’ in countries where measured.
- Less than 1% of total bond issuance is made up of labelled green bonds.

**BARRIERS TO SCALING SUSTAINABLE FINANCE**

- Cost-effectively internalizing environmental externalities
- Asymmetric information & search costs
- Maturity mismatch
- Unclear definitions and standards
- Inadequate analytical capabilities

“Achieving the SDGs will require mainstream finance. We need to build a new system – that delivers sustainable investment flows, based on both resilient market-based, and robust bank-based, finance.”

*Mark Carney, Governor, Bank of England*
**NATIONAL ACTION**

- **CHINA:** green finance as a national strategy
- **INDIA:** new tools for financing clean energy
- **KENYA:** from mobile banking to green finance
- **UK:** City of London Green Finance Initiative

**MARKET INNOVATION**

- Sustainable Digital Finance Alliance
- Network of Financial Centres

**INTERNATIONAL COOP.**

- G20 China 2016
- G20 Germany 2017
- G20 Argentina 2018
- G7 Italia 2017

---

* Examples only downloadable at www.unepinquiry.org
**Argentina:** Working with the Ministry of Finance on the development of a strategic stock take on sustainable finance in Argentina.

**China:** Partnering with the central bank on a green finance task force which presented 14 recommendations, nearly all adopted.

**EU:** Member of the High-Level Expert Group on Sustainable Finance that provided recommendations for a comprehensive EU strategy on sustainable finance.

**Italy:** Partnered with Ministry of the Environment on National Dialogue for Sustainable Finance, launched at central bank jointly with finance ministry.

**Kenya:** Engaging with central bank and bankers association on green finance opportunities including mobile banking.

**Mongolia:** Working with a range of stakeholders, including the Mongolian Bankers Association, to develop a sustainable finance roadmap.

**Morocco:** Supporting the implementation of Morocco’s Roadmap for Sustainable Finance, including the development of a sustainable insurance strategy with ACAPS.

**Nigeria:** Partnership with the Climate Bonds Initiative to assist the government of Nigeria as it was preparing the launch of its sovereign green bond.

**Singapore:** Collaboration with the Monetary Authority of Singapore and the Singapore Institute for International Affairs to advance a national dialogue on sustainable finance.
China: China: Agreed by China’s State Council in August 2016, the “Guidelines for Establishing a Green Financial System” are the world’s most comprehensive set of national commitments, covering a range of priorities across banking, capital markets and insurance.

EU: European Union: Building on developments across a number of member states, in 2016, the European Union set up the High-Level Expert Group on Sustainable Finance (HLEG) to map out options for community-wide action. This has laid the foundations for a comprehensive action plan on sustainable finance with associated legislative proposals.
Switzerland as a (Green) Financial Centre

Global Green Finance Index (GGFI)

<table>
<thead>
<tr>
<th>Centre</th>
<th>GGFI 1 Rank</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>1</td>
<td>402</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>2</td>
<td>389</td>
</tr>
<tr>
<td>Copenhagen</td>
<td>3</td>
<td>385</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>4</td>
<td>384</td>
</tr>
<tr>
<td>Paris</td>
<td>5</td>
<td>381</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>6</td>
<td>380</td>
</tr>
<tr>
<td>Stockholm</td>
<td>7</td>
<td>379</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>8</td>
<td>376</td>
</tr>
<tr>
<td>Zurich</td>
<td>8</td>
<td>376</td>
</tr>
<tr>
<td>Shanghai</td>
<td>10</td>
<td>375</td>
</tr>
</tbody>
</table>

Global Financial Centres Index 23 (2018)

<table>
<thead>
<tr>
<th>Centre</th>
<th>GFCI 23 Rank</th>
<th>Rating</th>
<th>GFCI 22 Rank</th>
<th>Rating</th>
<th>Change in Rank</th>
<th>Change in Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>1</td>
<td>794</td>
<td>1</td>
<td>780</td>
<td>0</td>
<td>▲14</td>
</tr>
<tr>
<td>New York</td>
<td>2</td>
<td>793</td>
<td>2</td>
<td>756</td>
<td>0</td>
<td>▲37</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>3</td>
<td>781</td>
<td>3</td>
<td>744</td>
<td>0</td>
<td>▲37</td>
</tr>
<tr>
<td>Singapore</td>
<td>4</td>
<td>765</td>
<td>4</td>
<td>742</td>
<td>0</td>
<td>▲23</td>
</tr>
<tr>
<td>Tokyo</td>
<td>5</td>
<td>749</td>
<td>5</td>
<td>725</td>
<td>0</td>
<td>▲24</td>
</tr>
<tr>
<td>Shanghai</td>
<td>6</td>
<td>741</td>
<td>6</td>
<td>711</td>
<td>0</td>
<td>▲30</td>
</tr>
<tr>
<td>Toronto</td>
<td>7</td>
<td>728</td>
<td>7</td>
<td>710</td>
<td>0</td>
<td>▲18</td>
</tr>
<tr>
<td>San Francisco</td>
<td>8</td>
<td>726</td>
<td>17</td>
<td>693</td>
<td>▲9</td>
<td>▲33</td>
</tr>
<tr>
<td>Sydney</td>
<td>9</td>
<td>724</td>
<td>8</td>
<td>707</td>
<td>▼1</td>
<td>▲17</td>
</tr>
<tr>
<td>Boston</td>
<td>10</td>
<td>722</td>
<td>19</td>
<td>690</td>
<td>▲9</td>
<td>▲32</td>
</tr>
<tr>
<td>Beijing</td>
<td>11</td>
<td>721</td>
<td>10</td>
<td>703</td>
<td>▼1</td>
<td>▲18</td>
</tr>
<tr>
<td>Melbourne</td>
<td>12</td>
<td>720</td>
<td>13</td>
<td>696</td>
<td>▼1</td>
<td>▲24</td>
</tr>
<tr>
<td>Montreal</td>
<td>13</td>
<td>719</td>
<td>12</td>
<td>697</td>
<td>▼1</td>
<td>▲22</td>
</tr>
<tr>
<td>Chicago</td>
<td>14</td>
<td>718</td>
<td>24</td>
<td>683</td>
<td>▲10</td>
<td>▲35</td>
</tr>
<tr>
<td>Vancouver</td>
<td>15</td>
<td>717</td>
<td>18</td>
<td>692</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zurich</td>
<td>16</td>
<td>713</td>
<td>9</td>
<td>704</td>
<td>▼7</td>
<td>▲9</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>17</td>
<td>712</td>
<td>23</td>
<td>683</td>
<td>▲6</td>
<td>▲29</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>18</td>
<td>710</td>
<td>20</td>
<td>689</td>
<td>▲2</td>
<td>▲21</td>
</tr>
<tr>
<td>Dubai</td>
<td>19</td>
<td>709</td>
<td>18</td>
<td>691</td>
<td>▼1</td>
<td>▲18</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>20</td>
<td>708</td>
<td>11</td>
<td>701</td>
<td>▼9</td>
<td>▲7</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>21</td>
<td>701</td>
<td>14</td>
<td>695</td>
<td>▼1</td>
<td>▲6</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>22</td>
<td>700</td>
<td>31</td>
<td>671</td>
<td></td>
<td>▲29</td>
</tr>
<tr>
<td>Osaka</td>
<td>23</td>
<td>692</td>
<td>21</td>
<td>688</td>
<td>▼2</td>
<td>▲4</td>
</tr>
<tr>
<td>Paris</td>
<td>24</td>
<td>687</td>
<td>26</td>
<td>680</td>
<td>▲2</td>
<td>▲7</td>
</tr>
<tr>
<td>Abu Dhabi</td>
<td>25</td>
<td>683</td>
<td>25</td>
<td>682</td>
<td>0</td>
<td>▲1</td>
</tr>
<tr>
<td>Geneva</td>
<td>26</td>
<td>682</td>
<td>16</td>
<td>694</td>
<td>▼10</td>
<td>▲12</td>
</tr>
</tbody>
</table>

Sustainable investment funds/mandates in Switzerland

* As of 2016, “Other financial products” will not be reported separately.
Source: Forum Nachhaltige Geldanlagen/Swiss Sustainable Finance
The Inquiry is working to promote international cooperation on green and sustainable finance policy and regulation with key institutions.

**G20:** The Inquiry manages the secretariat of the Sustainable Finance Study Group, co-chaired by China & the UK. This was launched in 2016 under China as the Green Finance Study Group & continued under Germany.

**G7:** Sustainable finance was one of the themes of the G7 Italian Presidency, focusing on finance for small enterprises and the role of financial centres.

**Insurance Supervision:** The Inquiry manages the secretariat for the Sustainable Insurance Forum, bringing together 20 insurance supervisors to work together on climate change and sustainable development issues.

**V20:** The Inquiry is working with the 55 most climate vulnerable countries to assess the impact of integrating climate risk into their cost of capital to form the basis for domestic and international policy dialogue.
The Inquiry is working with a range of partners to promote market innovation for green and sustainable finance.

**Bond Markets:** The Inquiry has partnered with the Government of Nigeria to help launch Africa’s first sovereign green bond, working with the Climate Bonds Initiative.

**Investors:** With the Principles for Responsible Investment, the Inquiry generated commitments from leading credit rating agencies to integrate environmental, social and governance factors into their analysis.

**Financial Centres:** Building on the Italy G7, the Inquiry is the convenor for a new network of Financial Centres for Sustainability, with 17 member from around the world.

**Digital Finance:** The Inquiry has partnered with China’s ANT Financial to form the Sustainable Digital Finance Alliance.
United Nations: The UN Secretary-General presented his strategy on financing the 2030 Agenda in September 2018


Policy Growth: The number of sustainable finance policies and measures has doubled to 300 between 2013 and 2017, with a strong rise in systemic action.
- More than 25 million people around the globe have been displaced from their homes by natural disasters every year since 2008.
- By 2040, automation may replace up to 40% of jobs in many countries, creating a crisis of livelihoods, macroeconomic instability, and political chaos.
- Climate adaptation costs, globally, could be as high as US$300 billion per year by 2030, and US$500 billion per year by 2050.

- Green bonds issued registering extraordinary gains over a five-year period, yet make up less than 1% of the global US$100 trillion bond market.
- Green infra investment in rising, but is a fraction of infra investment which is less than 1% of overall portfolios of institutional investors.
- Commitments to divest carbon assets increased to over US$5.2 trillion, yet investment in fossil fuel exploitation reached US$825 billion in 2016.
‘MORE OF THE SAME’ WILL NOT BE ENOUGH
BELT AND ROAD – A CASE IN POINT

• The Belt and Road Initiative is one of the largest infrastructure and investment projects in history, covering more than 68 countries, including 65% of the world's population and 40% of the global GDP.

• Between now and 2025, infrastructure investment commitments may exceed US$1.5 trillion, covering everything from power to transport, urban, water and so on.

• Massive carbon lock in could happen with 60-80 months, as carbon flows are primarily a matter of designed infrastructure, not execution.

• Failing to act now would end any likelihood of keeping temperature rises below 2 degrees.
REQUISITE SPEED-TO-SCALE REQUIRES HARNESSING SYSTEMIC DYNAMICS

- **Major investment programs** such as China’s Belt and Road initiative, which provide opportunities to influence the alignment of major investment flows.

- **Financial architecture** innovations enable the governance of the financial system to be aligned with sustainable development outcomes.

- **Financial crises** offer major opportunities to reshape aspects of the financial system, such as following 2008.

- **International political agreements** offer opportunities to shape systemic outcomes, such as the Paris Agreement.

- **Digitalisation of finance** can be harnessed to guide financial and business innovation to deliver on sustainable development.
DIGITAL FINANCE – A CASE IN POINT

- **BIG DATA** – Improves risk valuation & information
- **AI & AUTOMATION** – Reduces cost
- **MOBILE** – Increases inclusion & business innovation
- **BLOCKCHAIN** – Improves transparency & integrity
- **INTERNET OF THINGS** – Integrate ‘financial’ and ‘real’ economies

**OPPORTUNITY AND RISK**

Source: PwC's Global Artificial Intelligence Study 2017

**Global GDP uplift due to AI**

- **2030 impact:** $15.7 tn
- **Consumption contribution:** 60%
- **Productivity contribution:** 40%

**Global fintech investment growth**

Source: Accenture analysis on CB Insights data
Digital Finance: Market Innovation

- Technology mapping
- Business models and finance implications
- Uncertainties of socio-economic contexts
- Role of digital finance

What will infrastructures of the future look like?
What are implications to business models and infrastructure finance?
What are potential scenarios of the future?
What are the new financing approaches and impacts to the financial economy?

Infrastructure Futures
Is a partnership initiative involving the UN Environment, the OECD and the World Bank, supported by the German Government, mandated under the German G20 Presidency.
Ant Financial Services through the ‘Ant Forest app’ leverages mobile technology, big data and social media to incentivize green consumer behaviour and spending towards more sustainable choices at low cost and scale.

**280 million**
People in China voluntarily joined this app over the first sixteen months from August 2016 to December 2017

**2.050 million**
Tons of cumulative carbon avoided due to behaviour changes through the app

**40% +**
Share of Ant Financial’s users who signed up to the Ant Forest app in just 9 months

**13 million**
Trees planted as part of the scheme
<table>
<thead>
<tr>
<th>Country</th>
<th>Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of London</td>
<td>Green Finance Initiative undertaking research on green fintech; Convening workshops for the UK-China Green Finance Task Force on green fintech</td>
</tr>
<tr>
<td>China</td>
<td>Multi-stakeholder roundtables on green fintech; Strengthening capacity for green finance leadership on green digital finance</td>
</tr>
<tr>
<td>Singapore</td>
<td>Research on the nexus between digital finance and financing the SDGs; Convening regional actors; Featuring sustainable fintech at the Singapore Fintech Festival</td>
</tr>
<tr>
<td>Brazil</td>
<td>Bringing together the Brazilian financial sector and fintech community to discuss how to scale sustainable digital finance</td>
</tr>
<tr>
<td>Kenya</td>
<td>Sharing the potential of digital finance to promote sustainable development</td>
</tr>
<tr>
<td>Mexico</td>
<td>Supporting research on improving environmental risk analysis and financial decision-making through Publicly Available Environmental Data (PAED) and digital technologies</td>
</tr>
</tbody>
</table>
Sustainability and digital finance feature in the Sustainable Finance Study Group, but also work streams on financial inclusion, the energy transition, climate finance, etc.

The World Bank, OECD and UN Environment with support from the German Government is mid-way through major research piece that looks at how digital innovations open new opportunities for climate smart infrastructure investment.

The UN Secretary-General has mandated the establishment of a UN Task Force on Digital Finance and the SDGs to identify big opportunities for digital technologies to increase financing for all SDGs.
REQUISITE SPEED-TO-SCALE REQUIRES SYSTEMIC INTERVENTIONS

1. NATIONAL PLANS ON FINANCIAL REFORM & DEVELOPMENT
2. FINTECH DEVELOPMENTS & POLICY RESPONSES
3. LEVERAGING PUBLIC FINANCING
4. COMMON METHODS, TOOLS AND STANDARDS
5. PUBLIC AND POLICY MAKER AWARENESS
A quiet revolution is changing how the financial system should, can and is beginning to respond to the sustainable development imperative.

This revolution has become ‘noisier’ and more impactful since 2014 - in key capital markets, countries and the global arena.

This momentum, however, remains insufficient in terms of breadth, depth, scale and speed.

A series of practical steps can deliver transformation: national strategies, digital finance, leveraging public finance, building capabilities and developing common tools.
CONTACT

Simon Zadek
simon.zadek@undp.org

www.unepinquiry.org

@fininquiry